REMARKS

Claims 1-5 are pending in the present application. No amendment has been proposed. It is respectfully submitted that this Response is fully responsive to the Office Action dated October 6, 2005.

As to the Merits:

As to the merits of this case, the Examiner sets forth the following rejection:

claims 1-5 stand rejected under 35 USC 102(b) as being anticipated by Nishizawa et al. (U.S. Patent No. 6,873,751 B2).

This rejection is respectfully traversed.

The device of Nishizawa uses a ferroelectric or anti-ferroelectric material for the core layer and the clad layer and utilizes the electro-optical effect, thereby controlling the travelling direction of light. Specifically, the device of Nishizawa applies an electric field to the core layer of PZT and the clad layer of PLZT to change optical characteristics (for example, refractive index), and thus controls the traveling direction of light. Since the electro-optical effect is utilized, the clad layer and the core layer need not be made P-type or N-type.

On the other hand, in the device of the present invention, either the clad layer or the core layer forming the optical waveguide is made P-type and the other is made N-type. Also, the device of this invention applies an electric field to the PN junction part to change the refractive index of the core layer and the clad layer, and thus controls the travelling direction of light. Therefore, the operating principle of this invention totally differs from that of Nishizawa, which utilizes the electro-optical effect.

As such, it is respectfully submitted that Nishizawa fails to disclose or fairly suggest the features of independent claim 1 concerning *an optical path control device comprising an optical waveguide having a clad layer of P-type (or N-type) formed on a substrate and a core layer of N-type (or P-type) stacked on the clad layer, and electrodes formed on both sides of a part of the optical waveguide, wherein a voltage is applied between the electrodes to change the refractive index at the part of the optical waveguide where the electrode is formed.*

In addition, it is respectfully submitted that Nishizawa also fails to disclose or fairly suggest the features of independent claim 2 concerning *an optical path control device comprising an optical waveguide having a clad layer of P-type (or N-type) formed on a substrate and a core layer of N-type (or P-type) stacked on the clad layer, plural electrodes formed on both sides of the optical waveguide, plural incidence units provided at one end of the substrate, and plural emission units provided at the other end, wherein a voltage applied to an arbitrary electrode of*

the plural electrodes is controlled to change the refractive index at the part of the optical waveguide where the electrode is formed, so that light emitted from an arbitrary incidence unit and incident on the optical waveguide becomes incident on an arbitrary emission unit.

In view of the aforementioned remarks, Applicants submit that that the claims are in condition for allowance. Applicants request such action at an early date.

If the Examiner believes that this application is not now in condition for allowance, the Examiner is requested to contact Applicants' undersigned attorney to arrange for an interview to expedite the disposition of this case.

If this paper is not timely filed, Applicants respectfully petition for an appropriate extension of time. The fees for such an extension or any other fees that may be due with respect to this paper may be charged to Deposit Account No. 50-2866.

Respectfully submitted,

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